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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,629	05/24/2006	Xuejun Zhang	CN03 0063 US1	4375
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EXAMINER				
GONZALEZ, AMANCIO				
ART UNIT		PAPER NUMBER		
2617				
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04/14/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/580,629

**Applicant(s)**

ZHANG ET AL.

**Examiner**

AMANCIO GONZALEZ

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS-300)
- Paper No(s)/Mail Date 05/24/2006

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 5 and 13** recite the limitation "...setting the record flag..." in line 2. There is insufficient antecedent basis for this limitation in the claim.

Rejection for subsequent dependent claims 7 and 8 follows rejection of claim 5.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 6, and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Grube et al. (US 5666661 A), hereafter "Grube."

Consider **claim 1**. Grube discloses:

increasing P2P communication system capacity in a network system (*P2P reads on direct mode communication* -see col. 4 lines 9-17);

(a) detecting the position of active P2P UEs in P2P communication mode and the position of two UEs trying to establish P2P communication (*P2P reads on direct mode communication* -see col. 2 lines 44-67: Grube discusses wherein communication units may initiate a communication by transmitting a message and after knowing the

initiating and target communication units, a communication resource controller can then determine the geographic locations of each of the communication units);

(b) judging whether any of the two UEs falls into the radio range of any active UE except the two UEs, according to the detected position information (see fig. 1, col. 2 lines 53-67: Grube discusses wherein after knowing the initiating and target communication units, the communication resource controller (101) can then determine the geographic locations of each of the communication units. With this information, the resource controller can then determine the geographic separation of the units. If the geographic separation is greater than a predetermined distance, the communication resource controller (101) allocates a system communication resource (106-112) to the units. If the geographic separation is less than the predetermined distance, the communication resource controller (101) transmits, on the control channel, a direct mode message to the units, wherein the direct mode message instructs the units to use the direct mode communication resource (122), hence judging whether any of the two UEs falls into the radio range of any active UE except the two UEs, according to the detected position information);

(c) allocating corresponding radio resource to the two UEs so that the two UEs Can perform P2P communication, according to the judgment result (see col. 2 lines 58-67: Grube discusses that if the geographic separation is greater than a predetermined distance, the communication resource controller (101) allocates a system communication resource (106-112) to the units and that if the geographic separation is less than the predetermined distance, the communication resource controller (101)

transmits, on the control channel, a direct mode message to the units, wherein the direct mode message instructs the units to use the direct mode communication resource (122), hence allocating corresponding radio resource to the two UEs so that the-two UEs Can perform P2P communication, according to the judgment result).

**Claim 9** addresses the same subject matter as claim 1, therefore same rejection applies.

Consider **claim 6**. Grube teaches claim 1 and further discloses obtaining UEs position information and GPS (see col. 2 lines 16-20, 40-43)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims **2-4 and 10-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al. (US 5666661 A), hereafter "Grube," in view of Calvert (US 20050036470 A1), hereafter "Calvert."

Consider **claims 2-4 and 10-12**. Grube teaches claims 1 and 9, but does not disclose allocating timeslot or channel code.

Calvert, in related art, discloses allocating timeslot or channel (see par. 0028, fig. 1, where Calvert discusses a P2P wireless loop phone system that may utilize TDMA or CDMA techniques, hence including timeslot and channel code).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the invention of Grube with the teachings of Calvert and have it include timeslot and channel code allocation, i.e., TDMA and CDMA, thereby providing communication channel sharing for the purpose of efficiently managing communication resources in a wireless network.

9. Claims **5, 7, 8, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al. (US 5666661 A), hereafter "Grube," in view of Calvert

(US 20050036470 A1), hereafter "Calvert," as applied to claims 3 and 11, further in view of Teodosiu et al. (US 20020062375 A1), hereafter "Teodosiu."

Consider **claims 5 and 13**. Grube as modified by Calvert teaches claims 3 and 11, but does not disclose setting the record flags.

Teodosiu, in related art, discloses setting the record flags (see par. 0068).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the invention of Grube as modified by Calvert with the teachings of Teodosiu and have it include setting the record flags, thereby providing guiding means in resource allocation in peer-to-peer communication.

Consider **claims 7 and 8**. Grube as modified by Calvert and Teodosiu teaches claim 5; and Grube further discloses allocating communication resources and range determination for P2P communication (see Grube: col. 2 lines 53-67).

### ***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amancio González, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Patrick Edouard, can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

AG/ag

April 10, 2009  
/Patrick N. Edouard/

Supervisory Patent Examiner, Art Unit 2626



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